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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,729	03/30/2001	Yuji Sato	108842	4738

25944 7590 05/17/2005

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P.O. BOX 19928  
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EXAMINER
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DU, THUAN N

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/820,729

Applicant(s)

SATO, YUJI

Examiner

Thuan N. Du

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-9,11,12 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 2,5,10 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment filed on 2/18/2005.
2. Claims 1-17 are presented for examination.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. The rejections are maintained and reproduced infra for applicant's convenience.

#### ***Claim Rejections - 35 USC § 103***

5. Claims 1, 3, 4, 6-9, 11, 12 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission of prior art [AAPA] and Servilio et al. [Servilio] (U.S. Patent No. 6,169,889).
6. Regarding claims 1, 4, 7, 9, 12 and 15, AAPA teaches a data transfer device that transfers data, via a plurality of signal lines, comprising a data transfer timing signal output device that outputs a timing signal for the data transfer for each of the plurality of signal lines [application's specification, p. 1, lines 8-9, 27-28]. AAPA does not teach a frequency of the timing signal can be randomly changed.

Servilio teaches a data transfer system in which a frequency of the timing signal is changed randomly for each of the plurality of signal lines without becoming a specific cycle, so as to delimit an energy density in the plurality of signal lines [col. 4, lines 9-15, 38-54; col. 5, lines 12-16].

Art Unit: 2116

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of AAPA to randomly change the frequency of timing signal as taught by Servilio. The modification would increase the reliability of the system because the radio frequency interference (RFI) is reduced.

7. Regarding claims 3, 6, 8, 11, 14 and 16, AAPA teaches a flat harness connects the data transfer device to another device to which the data is transferred [application's specification, p. 1, lines 10-14].

8. Regarding claim 4, Servilio further teaches that the system including a transfer clock generating device that generates a transfer clock that determines a timing for the data transfer, based on the system clock [col. 4, lines 9-11].

9. Regarding claim 7, Servilio further teaches that the system including a delayed transfer clock generating device [Fig. 13].

10. Regarding claims 9, 12 and 15, Servilio does not teaches the data transfer device is a printing device. However, one of ordinary skill in the art would have recognized that the teachings of Servilio could be applicable in any device, which produces RFI, including a printing device taught by AAPA.

11. Regarding claim 17, since the claim recites method of operating of the apparatus defined in the apparatus claims, it is rejected accordingly based on the rejection of the apparatus claims.

***Allowable Subject Matter***

12. Claims 2, 5, 10 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

13. Applicant's arguments filed on February 18, 2005 have been fully considered but they are not persuasive.

14. In response to applicant's argument that the combination of references fails to disclose each and every feature recited in the rejected claims, the examiner recognizes that the combination of AAPA and Servilio discloses each and every feature recited in the claims as addressed in the last office action and the reproduced rejections above. Furthermore, applicant fails to address which element or feature is not disclosed by the combination of references.

15. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as addressed, AAPA teaches a data transfer device that transfers data, via a plurality of signal lines, comprising a data transfer timing signal output device that outputs a timing signal for the data transfer for each of the plurality of signal lines. Servilio teaches that randomly

Art Unit: 2116

changing frequency of the timing signal for each of the plurality of signal lines would reduce radio frequency interference (RFI) emissions (such as noises) [col. 4, lines 9-15, 38-54; col. 5, lines 12-16]. One of ordinary skill would have made the modification upon looking both of the prior art teachings because of the advantage taught by Servilio, namely reducing radio frequency interference (such as noises). Thus, suggestion comes from the prior art and is not impermissible hindsight.

16. In response to applicant's argument that Servilio and the application are addressing different problems relating to disparate technologies, the examiner respectfully disagrees. One of ordinary skill would have recognized that reducing radio frequency interference (RFI) emissions is reducing radiant noises and cross-talk. They are the same physical phenomenon.

### ***Conclusion***

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2116

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan N. Du whose telephone number is (571) 272-3673. The examiner can normally be reached on Monday and Wednesday-Friday: 9:30 AM - 8:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (571) 272-3670.

Central TC telephone number is (571) 272-2100.

The fax number for the organization is (703) 872-9306.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



Thuan N. Du  
May 12, 2005